

AMENDMENTS TO THE SPECIFICATION:

On Page 2, please replace the paragraph between lines 7-9 with the following amended paragraph:

In order to take the roles played by autograft and allograft, bone substitute materials made under the principle of biomimetic strategy, and which mimic the natural bone both in composition and microstructure, are still in great ~~necessity~~ demand.

On Page 5, please replace the paragraph between lines 9-28 with the following amended paragraph:

According to another aspect, the invention provides a process for preparing the composite of the invention. It is known that collagen is a ~~structure~~ structural protein with good performance in maintaining bone mechanical integrity. With the collagen being assembled properly (like in the natural bone) with osteoinductive inorganic calcium phosphates such as hydroxyapatite, the composite of the invention has demonstrated excellent tenacity, ~~toughness~~ toughness, biocompatibility and bioactivity. The process of the invention is accomplished under the idea of bio-self-assembling, that is, in the present process, calcium phosphates are formed in situ and deposited on the template of acid dissolved collagen. To this end, collagen is dissolved in acetic acid and aqueous solutions of sodium phosphate and $\text{CaCl}_2 \cdot 6\text{H}_2\text{O}$ are then added. When the pH value increases from about pH2 to pH 7 to 8, the acid-dissolved collagen assembles into fibers on which the Ca^{2+} , PO_4^{3-} ions begin to deposit. Then, the solution is maintained at neutral pH and incubated at 30°C for 1 to 5 days before finally the composite is harvested by centrifugation. In this way, collagen and calcium phosphates are integrated as a whole in the composite of the invention. The calcium phosphates are of low crystallinity. And the phase composition is controlled by parameters such as the Ca/P ratio of starting materials and time of incubation. Higher Ca/P ratio and longer incubation time ~~of incubation~~ generally lead to more HAP content in the final composite. At the Ca/P of 1.67 and 5 days incubation the calcium phosphates in the final composite are mainly hydroxyapatite.